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NATIONAL PHOTOGRAPHIC
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**PHOTOGRAPHIC
INTERPRETATION
REPORT**

**NEW PROBABLE SAM LAUNCHER
ON SOVIET SHIPS**

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**NEW PROBABLE SAM LAUNCHER
ON SOVIET SHIPS****INTRODUCTION**

1. Three classes of Soviet naval ships employ a new type of retractable probable surface-to-air missile (SAM) launcher. The ships are the Krivak-class guided missile destroyer (DDGM), the Grisha-class large submarine chaser (PCS), and the Nanuchka-class guided missile patrol boat (PGG). This missile launcher appears to be a single-arm type. If so, it is a departure from the standard twin-arm type used by other Soviet SAM-armed combatants. Measurements

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BASIC DESCRIPTION

2. In December 1970 when the Krivak DDGM was first observed undergoing sea trials, a missile launcher was seen aft of the stack in both extended and retracted positions. This ship had been seen under construction at Kaliningrad Shipyard 820, USSR, on KEYHOLE photography of [REDACTED]. At that time the photography revealed two unoccupied armament platforms on the ship, one forward of the antisubmarine rocket launchers and the other abaft the stack (Figure 1). These platforms were each 3 meters (10 feet) in diameter. The forward armament positions on the Grisha PCS (Figure 2) and the Nanuchka PGG (Figures 2 and 3) are also platforms 3 meters (10 feet) in diameter.

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3. A Grisha PCS with the new launcher system was seen at Feodosiya Naval Base and Shipyard [redacted] and at Sevastopol Naval Base Streletskaia [redacted]. The launcher seen at Feodosiya [redacted]. When retracted, the missile launcher is covered by a circular hatch. This hatch is divided into two hinged sections which open outward. The hatch covers have not been seen open on the Nanuchka PGG or on the Krivak DDGM.

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4. An object, possibly the new launcher, was seen on the bow of a Nanuchka PGG at Feodosiya Naval Base and Shipyard [redacted] (Figure 2). Although positive identification could not be made, the height and shape of the object suggested that it was the new launcher in the extended position. An artist's concept of the possible configuration of the launcher in the firing position is presented as an inset on Figure 2. The missile shown in this drawing is for illustrative purposes only and was not observed on the photography.

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5. Since a strong probability exists that the three mentioned classes of ships all employ the same retractable launching system, it appears equally probable that the ships should employ the same fire control radar system. A radar believed to be associated with the new launcher system has been seen at Petrovskiy Shipyard in Leningrad where the Nanuchka PGG is constructed. A naval attache photograph shows this radar on the quay in front of the six-door construction hall (Figure 5). No technical analysis of this radar is yet available, but its configuration suggests that it may be the fire control radar for the retractable launcher system. An artist's concept of this radar (inset, Figure 5) shows that the radar has a possible acquisition-type radar antenna and two circular antennas possibly used for missile guidance and airborne target tracking.

6. Two radars are used on the Krivak DDGM, one atop the bridge and one aft of the main mast. These radars and the one seen at Petrovskiy Shipyard (Figure 5) are similar in appearance. On the Grisha PCS the radar is positioned atop the bridge. The radar on the Grisha PCS has not been observed from ground level, but KEYHOLE photography has revealed an object on the bridge similar in size to that of the radar on the Krivak DDGM. On the Nanuchka PGG, the radar is housed in a large radome atop the superstructure (Figures 2 and 3).

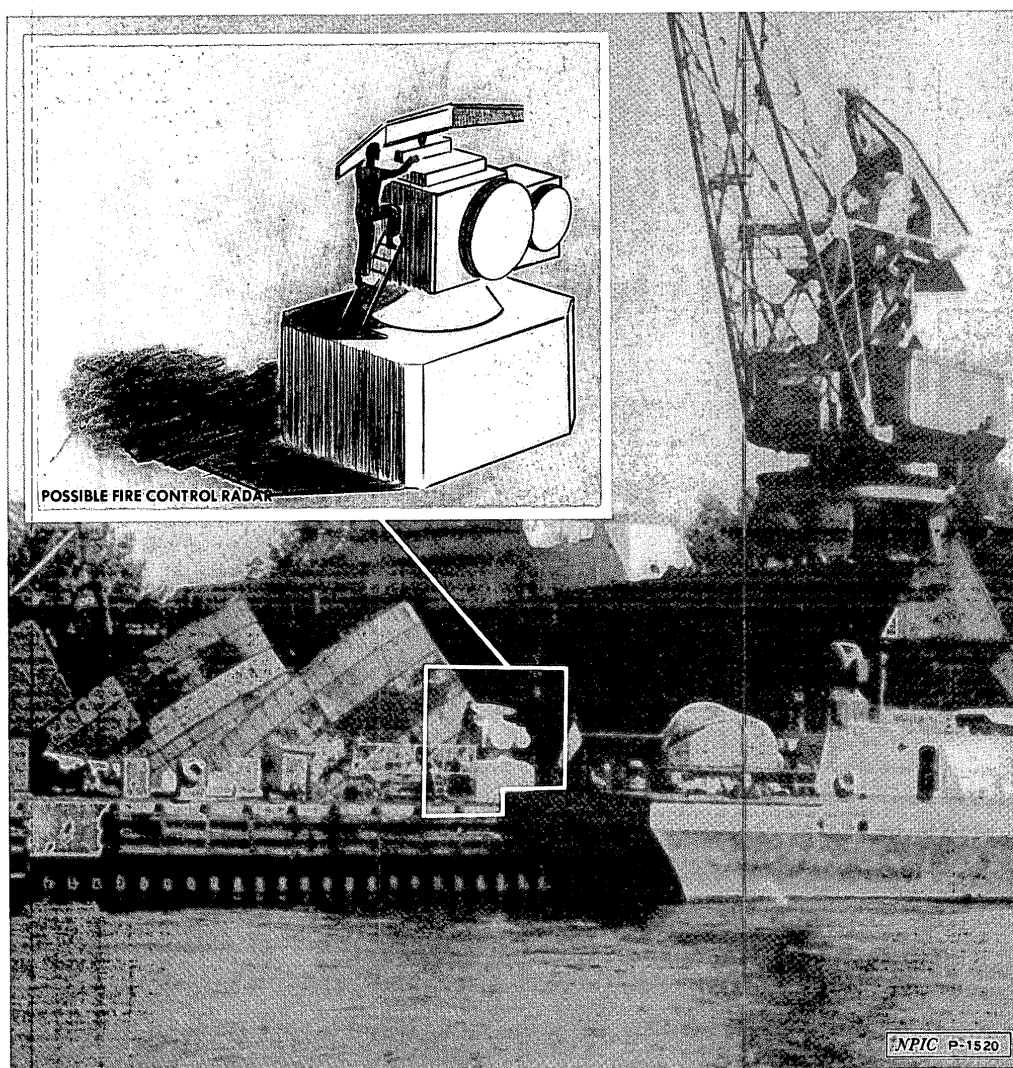


FIGURE 5. PETROVSKIY SHIPYARD, LENINGRAD, USSR (NAVAL ATTACHE PHOTOGRAPH, 1960)

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REFERENCES

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RELATED DOCUMENT

NPIC. 820A Destroyer Escort, Sep 70 (TOP SECRET 25X1
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REQUIREMENT

NPIC/IEG/WGD/SSB Project 143301NR

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